

MINOR SOURCE OPERATING PERMIT

OFFICE OF AIR QUALITY

Performix Technologies
8151 South Range Road
Kingsford Heights, Indiana 46346

(herein known as the Permittee) is hereby authorized to *construct and* operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 091-15241-00125	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: Expiration Date:

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates stationary source relating to the operation of briquette manufacturing.

Authorized Individual:	General Manager
Source Address:	8151 South Range Road, Kingsford Heights, IN 46346
Mailing Address:	8151 South Range Road, Kingsford Heights, IN 46346
General Source Phone:	(219) 393-5585
SIC Code:	3297
County Location:	LaPorte
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD; Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) auto briquette operation consisting of five (5) storage silos and bucket elevators, and conveyors, identified as F001 (constructed in 1994), with a maximum process weight rate of 8.0 tons per hour, using a dust collector (CE1) for PM and PM10 control, and exhausting through one (1) stack identified as CE1.
- (b) One (1) batch briquette operation consisting of feed hopper, enclosed mixer and a screener identified as F002 (constructed in 1994), with a maximum process weight rate of 3.2 tons per hour, and exhausting inside the building.
- (c) One (1) hot top compounding operation consisting of two (2) storage silos, storage bin gravity chute and enclosed mixer/hopper, identified as F003 (constructed in 1990), with a maximum process weight rate of 1.25 tons per hour, using a dust collector (CE2) for PM and PM10 control, and exhausting through one (1) stack identified as CE2.
- (d) One (1) coarse mixing operation with two (2) enclosed mixers, identified as F004 (constructed in 1990), with a maximum process weight rate of 6.0 tons per hour, and exhausting inside the building.
- (e) One (1) truck load out and conveying operation identified as F005 (constructed in 2000), with a maximum process weight rate of 20.0 tons per hour, using a dust collector (CE3) for PM and PM10 control and exhausting through one (1) stack identified as CE3.
- (f) Paved and unpaved roads and parking lots with public access.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-2-8]

Pursuant to 326 IAC 2-2-8(a)(1), this permit to construct shall expire if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is discontinued for a period of eighteen (18) months or more.

B.5 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.6 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.7 Minor Source Operating Permit [326 IAC 2-6.1]

- (a) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).
- (b) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this

permit.

- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015
- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

B.9 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

- (c) A copy of the PMP's shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMP whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.10 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.11 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2]

- Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:
- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
 - (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
 - (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
 - (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.12 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.13 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-

10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

- (f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements

C.6 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.7 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements

C.8 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.9 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.10 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) Whenever a condition in this permit requires the measurement of total static pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

C.11 Compliance Response Plan - Preparation and Implementation

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.14 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The

report does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) auto briquette operation consisting of five (5) storage silos and bucket elevators, and conveyors, identified as F001 (constructed in 1994), with a maximum process weight rate of 8.0 tons per hour, using a dust collector (CE1) for PM and PM10 control, and exhausting through one (1) stack identified as CE1.
- (b) One (1) batch briquette operation consisting of feed hopper, enclosed mixer and a screener identified as F002 (constructed in 1994), with a maximum process weight rate of 3.2 tons per hour, and exhausting inside the building.
- (c) One (1) hot top compounding operation consisting of two (2) storage silos, storage bin gravity chute and enclosed mixer/hopper, identified as F003 (constructed in 1990), with a maximum process weight rate of 1.25 tons per hour, using a dust collector (CE2) for PM and PM10 control, and exhausting through one (1) stack identified as CE2.
- (d) One (1) coarse mixing operation with two (2) enclosed mixers, identified as F004 (constructed in 1990), with a maximum process weight rate of 6.0 tons per hour, and exhausting inside the building.
- (e) One (1) truck load out and conveying operation identified as F005 (constructed in 2000), with a maximum process weight rate of 20.0 tons per hour, using a dust collector (CE3) for PM and PM10 control and exhausting through one (1) stack identified as CE3.
- (f) Paved and unpaved roads and parking lots with public access.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.1.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the from the following units shall be limited as follows:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)

Auto Briquette (F001)	8.0	16.51
Batch Briquette (F002)	3.2	8.93
Hot Top Compounding (F003)	1.25	4.76
Coarse Mixer (F004)	6.0	13.61
Truck Loadout and Conveying (F005)	20.0	30.51

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying facilities and their control device.

Compliance Determination Requirements

D.1.3 Particulate Control

In order to comply with D.1.1, the dust collectors (CE1, CE2 and CE3) for particulate control shall be in operation and control emissions from the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying facilities at all times that these facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Visible Emissions Notations

- (a) Visible emission notations of the CE1, CE2 and CE3 stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit.

D.1.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the dust collectors (CE1, CE2, and

CE3) used in conjunction with the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying facilities, at least once per shift when the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying facilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.6 Baghouse Inspections

An inspection shall be performed within the last month of each calendar quarter of all dust collectors (CE1, CE2 and CE3) controlling the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying facilities. All defective bags shall be replaced.

D.1.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

Record Keeping and Reporting Requirement

D.1.8 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records of visible emission notations of the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying facilities stack exhaust once per shift.
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain records once per shift of the total static pressure drop.
- (c) To document compliance with Condition D.1.6, the Permittee shall maintain records of the results of the inspections required under Condition D.1.6.

- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Performix Technologies
Address:	8151 South Range Road
City:	Kingsford Heights, IN 46346
Phone #:	(219) 393-5585
MSOP #:	091-15241-00125

I hereby certify that Performix Technologies is ☒ still in operation.
☒ no longer in operation.

I hereby certify that Performix Technologies is ☒ in compliance with the requirements of MSOP 091-15241-00125.
☒ not in compliance with the requirements of MSOP 091-15241-00125.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/19____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO₂, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

PAGE 1 OF 2

**Please note - This form should only be used to report malfunctions
applicable to Rule 326 IAC 1-6 and to qualify for
the exemption under 326 IAC 1-6-4.**

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name: Performix Technologies
Source Location: 8151 South Range Road, Kingsford Heights, IN 46346
County: LaPorte
SIC Code: 3297
Operation Permit No.: 091-15241-00125
Permit Reviewer: Adeel Yousuf / EVP

The Office of Air Quality (OAQ) has reviewed an application from Peformix Tecnologies relating to the operation of briquette manufacturing.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission units and pollution control devices:

- (a) One (1) auto briquette operation consisting of five (5) storage silos and bucket elevators, and conveyors, identified as F001 (constructed in 1994), with a maximum process weight rate of 8.0 tons per hour, using a dust collector (CE1) for PM and PM10 control, and exhausting through one (1) stack identified as CE1.
- (b) One (1) batch briquette operation consisting of feed hopper, enclosed mixer and a screener identified as F002 (constructed in 1994), with a maximum process weight rate of 3.2 tons per hour, and exhausting inside the building.
- (c) One (1) hot top compounding operation consisting of two (2) storage silos, storage bin gravity chute and enclosed mixer/hopper, identified as F003 (constructed in 1990), with a maximum process weight rate of 1.25 tons per hour, using a dust collector (CE2) for PM and PM10 control, and exhausting through one (1) stack identified as CE2.
- (d) One (1) coarse mixing operation with two (2) enclosed mixers, identified as F004 (constructed in 1990), with a maximum process weight rate of 6.0 tons per hour, and exhausting inside the building.
- (e) One (1) truck load out and conveying operation identified as F005 (constructed in 2000), with a maximum process weight rate of 20.0 tons per hour, using a dust collector (CE3) for PM and PM10 control and exhausting through one (1) stack identified as CE3.
- (f) Paved and unpaved roads and parking lots with public access.

Existing Approvals

This is the first air approval issued to this source.

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
CE1	Auto Briquetter	17	1.5	5940	Ambient
CE2	Hot Top	17	1.0	3800	Ambient
CE3	Truck Loadout	14	1.5	7500	Ambient

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 26, 2001, with additional information received on March 12, 2002 and September 25 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, seven (7) pages).

Potential To Emit (of Source or Revision) Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	81.45

PM-10	77.17
SO ₂	0.00
VOC	0.00
CO	0.00
NO _x	0.00

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 100 tons per year and PTE of PM and PM10 are greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1.
- (b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in LaPorte County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. LaPorte County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) LaPorte County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	17.37

PM10	13.09
SO ₂	0.00
VOC	0.00
CO	0.00
NO _x	0.00

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source, with total emissions as indicated in this permit MSOP 091-15241-00125, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in LaPorte County and the potential to emit any criteria pollutant is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a

source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

State Rule Applicability - Individual Facilities

326 IAC 6-3-2(d) (Particulate)

Pursuant to 40 CFR 52 Subpart P, the particulate matter (PM) from the following processes shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Emission Unit	Process Weight Rate (tons/hr)	Uncontrolled PM Emissions (lb/hr)	Control Efficiency %	Controlled PM Emissions (lb/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
Auto Briquette (F001)	8.0	5.09	99	0.05	16.51
Batch Briquette (F002)	3.2	2.03	0	2.03	8.93
Hot Top Compounding (F003)	1.25	3.25	99	0.03	4.76
Coarse Mixer (F004)	6.0	0.24	0	0.23	13.61
Truck Loadout and Conveying (F005)	20.0	6.43	99	0.06	30.51

All units will comply with the requirements of 326 IAC 6-3-2.

Testing Requirements

Stack testing for the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying is not required because the uncontrolled potential PM emissions are 5.09, 3.25 and 6.43 lbs PM/hr, respectively, and the controlled PM emissions (after the control of dust collector) from the operation are 0.05, 0.03 and 0.06 pounds per hour, respectively which are much less than the allowable 16.51, 4.76 and 30.51lbs PM/hr, respectively and each dust collector shall be in operation at all times when the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying is in operation.

Stack testing for Batch Briquette and Coarse Mixer Operation is not required as these operations are indoor operations and have no exhaust vents which exhaust to the atmosphere.

Compliance Requirements

Permits issued under 326 IAC 2-6 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

1. The Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying facilities have applicable compliance monitoring conditions as specified below:
 - (a) Visible emission notations of the CE1, CE2 and CE3 stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit.
 - (b) The Permittee shall record the total static pressure drop across the dust collectors (CE1, CE2, and CE3) used in conjunction with the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying facilities, at least once per shift when the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying

facilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

- (c) An inspection shall be performed within the last month of each calendar quarter of all dust collectors (CE1, CE2 and CE3) controlling the Auto Briquette, Hot Top Compounding and Truck Loadout and Conveying facilities. All defective bags shall be replaced.
- (d) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit.
- (e) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

These monitoring conditions are necessary because the dust collectors for these facilities must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this briquette manufacturing plant shall be subject to the conditions of the attached proposed Minor Source Operating Permit 091-15241-00125.

Appendix A: Emission Calculations

Company Name: Performix Technologies
Address City IN Zip: 8151 South Range Road, Kingsford Heights, IN 46346
CP: 091-15241
Pit ID: 091-00125
Reviewer: Adeel Yousuf / EVP
Date: October 10, 2002

Uncontrolled Potential Emissions (tons/year)				
Pollutant	Conveying and Handling Emissions	Emissions Generating Activity		TOTAL
		Auto Briquetter, Hot Top, Coarse Mixer, Batch Briquetter and Truck Loadout Emissions	Fugitive Emissions (Unpaved Roads & Storage)	
PM	5.83	74.70	0.92	81.45
PM10	2.76	74.18	0.23	77.17
SO2	0.00	0.00	0.00	0.00
NOx	0.00	0.00	0.00	0.00
VOC	0.00	0.00	0.00	0.00
CO	0.00	0.00	0.00	0.00
total HAPs	0.00	0.00	0.00	0.00
worst case single HAP	0.00	0.00	0.00	0.00
Total emissions based on rated capacity at 8,760 hours/year				
Controlled and Limited Emissions (tons/year)				
Pollutant	Conveying and Handling Emissions	Emissions Generating Activity		TOTAL
		Auto Briquetter, Hot Top, Coarse Mixer, Batch Briquetter and Truck Loadout Emissions	Fugitive Emissions (Unpaved Roads & Storage)	
PM	5.83	10.62	0.92	17.37
PM10	2.76	10.10	0.23	13.09
SO2	0.00	0.00	0.00	0.00
NOx	0.00	0.00	0.00	0.00
VOC*	0.00	0.00	0.00	0.00
CO	0.00	0.00	0.00	0.00
total HAPs**	0.00	0.00	0.00	0.00
worst case single HAP	0.00	0.00	0.00	0.00
Total emissions based on rated capacity at 8,760 hours/year, after control				

**Appendix A: Emissions Calculations
Particulate Matter (PM) Emissions**

Page 2 of 7 TSD App A

Company Name: Performix Technologies
Address City IN Zip: 8151 South Range Road, Kingsford Heights, IN 46346
CP#: 091-15241
Pit ID: 091-00125
Permit Reviewer: Adeel Yousuf / EVP

Particulate Matter Emissions from Auto Briquetter (F001)

PM/PM10:	0.001 gr/acf outlet x	5940 acf/min x	60 min/hr /	7000 gr/lb x	4.38 ton/yr / lb/hr	0.01 (1- control efficiency) =	22.30 tons/yr (uncontrolled)
	where the baghouse control efficiency is listed at 99.00%						0.22 tons/yr (controlled)

Particulate Matter Emissions from Hot Top (F003)

PM/PM10:	0.001 gr/acf outlet x	3800 acf/min x	60 min/hr /	7000 gr/lb x	4.38 ton/yr / lb/hr	0.01 (1- control efficiency) =	14.27 tons/yr (uncontrolled)
	where the baghouse control efficiency is listed at 99.00%						0.14 tons/yr (controlled)

Particulate Matter Emissions from Truck Loadout (F005)

PM/PM10:	0.001 gr/acf outlet x	7500 acf/min x	60 min/hr /	7000 gr/lb x	4.38 ton/yr / lb/hr	0.01 (1- control efficiency) =	28.16 tons/yr (uncontrolled)
	where the baghouse control efficiency is listed at 99.00%						0.28 tons/yr (controlled)

Particulate Matter Emissions from Batch Briquetter (F002)

There is no baghouse to control PM from Batch Briquetter (F002). Therefore, PM emissions from batch briquetter are pro rated based on the throughput rates of the Auto Briquetter and the Batch Briquetter. Both units are quite similar in operation and would have similar emission rates. Also, this method provides conservative approach as the Batch Briquetter is more enclosed operation than the Auto Briquetter. This approach is based on source's recommendation

Auto Briquetter throughput (ton/hr):	8	PM/PM10 Emissions from Auto Briquetter:	22.30 tons/yr (uncontrolled)
Batch Briquetter throughput (ton/hr):	3.2	Calculated PM/PM10 Emissions from Batch Briquetter:	8.92 tons/yr (uncontrolled) 8.92 tons/yr (controlled)

Total:	73.64 tons/yr (uncontrolled) 9.57 tons/yr (controlled)
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Methodology

(PM emissions from Batch Briquetter = 3/8 x calculated PM emissions from Auto Briquetter)

Uncontrolled PM/PM10 = grain loading (gr/acf outlet) * Flow rate (acfm) * (60 min/hr) * (1 lb/7000 gr) * 4.38 (tons/yr / lb/hr) / (1- control efficiency %)

Company Name:
Plant Location:
County:
Date:
Permit Reviewer:

Performix Technologies
8151 South Range Road, Kingsford Heights, IN 46346
Laporte
July 12, 2002
Adeel Yousuf /EVP

**** conveying / handling ****

Auto Briquetter (F001) ((Indoor operation)*)

The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM & PM-10 Emissions:

$$E = k * (0.0032) * ((U/5)^{1.3}) / ((M/2)^{1.4})$$

$$= 7.80E-03 \text{ lb PM-10/ton}$$

$$1.65E-02 \text{ lb PM/ton}$$

where k = 0.35 (particle size multiplier for <10um)
0.74 (particle size multiplier for <30um)

U = 5 mph mean wind speed
M = 0.5 material moisture content (%)

$$\frac{8 \text{ ton/hr} * 8,760 \text{ hrs/yr} * E_f \text{ (lb/ton of material)}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

Total PM 10 Emissions: 0.27 tons/yr
Total PM Emissions: 0.58 tons/yr

Batch Briquetter (F002) (Indoor operation) *

The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM & PM-10 Emissions:

$$E = k * (0.0032) * ((U/5)^{1.3}) / ((M/2)^{1.4})$$

$$= 7.80E-03 \text{ lb PM-10/ton}$$

$$1.65E-02 \text{ lb PM/ton}$$

where k = 0.35 (particle size multiplier for <10um)
0.74 (particle size multiplier for <30um)

U = 5 mph mean wind speed
M = 0.5 material moisture content (%)

$$\frac{3 \text{ ton/hr} * 8,760 \text{ hrs/yr} * E_f \text{ (lb/ton of material)}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

Total PM 10 Emissions: 0.10 tons/yr
Total PM Emissions: 0.22 tons/yr

Hot Top Area (F003) (Indoor operation) *

The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM & PM-10 Emissions:

$$E = k * (0.0032) * ((U/5)^{1.3}) / ((M/2)^{1.4})$$

$$= 7.80E-03 \text{ lb PM-10/ton}$$

$$1.65E-02 \text{ lb PM/ton}$$

where k = 0.35 (particle size multiplier for <10um)
0.74 (particle size multiplier for <30um)

U = 5 mph mean wind speed
M = 0.5 material moisture content (%)

$$\frac{1.25 \text{ ton/hr} * 8,760 \text{ hrs/yr} * E_f \text{ (lb/ton of material)}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

Total PM 10 Emissions: 0.04 tons/yr
Total PM Emissions: 0.09 tons/yr

* Conservatively, 5 mph mean wind speed is assumed for indoor operations.

Coarse Mixers (F004) (Indoor operation) *

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The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM & PM-10 Emissions:

$$\begin{aligned}
 E &= k \cdot (0.0032) \cdot ((U/5)^{1.3}) / ((M/2)^{1.4}) \\
 &= 7.80\text{E-}03 \text{ lb PM-10/ton} \\
 &\quad 1.65\text{E-}02 \text{ lb PM/ton} \\
 \text{where } k &= 0.35 \text{ (particle size multiplier for } <10\mu\text{m)} \\
 &\quad 0.74 \text{ (particle size multiplier for } <30\mu\text{m)} \\
 U &= 5 \text{ mph mean wind speed} \\
 M &= 0.5 \text{ material moisture content (\%)}
 \end{aligned}$$

$$\frac{6 \text{ ton/hr} \cdot 8,760 \text{ hrs/yr} \cdot E_f \text{ (lb/ton of material)}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

Total PM 10 Emissions: 0.20 tons/yr

Total PM Emissions: 0.43 tons/yr

* Conservatively, 5 mph mean wind speed is assumed for indoor operations.

Truck Loading Conveyor (F005) (Outdoor operation)

The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM & PM-10 Emissions:

$$\begin{aligned}
 E &= k \cdot (0.0032) \cdot ((U/5)^{1.3}) / ((M/2)^{1.4}) \\
 &= 2.43\text{E-}02 \text{ lb PM-10/ton} \\
 &\quad 5.15\text{E-}02 \text{ lb PM/ton} \\
 \text{where } k &= 0.35 \text{ (particle size multiplier for } <10\mu\text{m)} \\
 &\quad 0.74 \text{ (particle size multiplier for } <30\mu\text{m)} \\
 U &= 12 \text{ mph mean wind speed} \\
 M &= 0.5 \text{ material moisture content (\%)}
 \end{aligned}$$

$$\frac{20 \text{ ton/hr} \cdot 8,760 \text{ hrs/yr} \cdot E_f \text{ (lb/ton of material)}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

Total PM 10 Emissions: 2.13 tons/yr

Total PM Emissions: 4.51 tons/yr

Total PM 10 Emissions: 2.76 tons/yr

Total PM Emissions: 5.83 tons/yr

**** storage ****

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The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

Material	Silt Content (wt %)	Pile Size (acres)	Storage Capacity (tons)	P M Emissions tons/yr	P M-10 Emissions tons/yr
Slag	1.0	0.030	263	6.44E-03	2.25E-03
Aluminum Dross	2.0	0.029	66	1.24E-02	4.34E-03
Carbon	0.0	0.015	20	0.00E+00	0.00E+00
Aluminum	0.0	0.503	300	0.00E+00	0.00E+00
Lime	0.0	0.009	225	0.00E+00	0.00E+00
Stearate	0.0	0.015	40	0.00E+00	0.00E+00
Rice Hulls	0.0	0.005	125	0.00E+00	0.00E+00
Perlite	0.0	0.009	20	0.00E+00	0.00E+00
Vermiculite	0.0	0.007	23	0.00E+00	0.00E+00
Fluorspar	0.0	0.006	50	0.00E+00	0.00E+00
Total				1.88E-02	6.60E-03

Sample Calculation:

$$E_f = 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15)$$

$$= 1.16 \text{ lb/acre/day}$$

where s = 1 % silt

p = 125 days of rain greater than or equal to 0.01 inches

f = 15 % of wind greater than or equal to 12 mph

PM = 0.006 tons/yr

P M-10: 35% of PM = 0.002 tons/yr

Coarse Mixers (F004) (Indoor operation)**** Mixing ****

The following calculations determine the amount of emission created by mixing operation based on 8,760 hours of use. The emission calculation is for Coarse mixer (F004) with combined maximum capacity of 6 tons per hour

Pollutant:	Ef	lb/ton x	6	ton/hr x	8,760 hr/yr
			2000	lb/ton	
PM:		4.0E-02	lb/ton =		1.05 ton/yr
PM-10:		2.0E-02	lb/ton =		0.53 ton/yr

PM and PM-10 emission factors for mixing are from FIRE version 6.23 and for Mixer loading of cement/sand/aggregate.

Company Name:

Performix Technologies

Plant Location:

8151 South Range Road, Kingsford Heights, IN 46346

County:

Laporte

Date Received:

September 24, 2002

Permit Reviewer:

Adeel Yousuf/EVP

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2.2

I. Dump Trucks

$$0.125 \text{ trip/hr} \times 0.14 \text{ mile/trip} \times 2 \text{ (round trip)} \times 8,760 \text{ hr/yr} = 307 \text{ mile/yr}$$

$$E_f = k \left[\frac{s}{12} \right]^a \left[\frac{W}{3} \right]^b \left[\frac{M_{dry}}{0.2} \right]^c \left[\frac{365-p}{365} \right] \left(\frac{S}{15} \right)$$

$$= \frac{3.75}{0.97} \text{ lb PM/mile}$$

$$= \frac{3.75}{0.97} \text{ lb PM-10/mile}$$

where k =	10	(particle size multiplier, PM30)	(k= 2.6 for PM10)
s =	4.8	mean % silt content of unpaved plant roads	
a =	0.8	Constant for PM30/PM-10	
W =	38	tons, average vehicle weight	
b =	0.5	Constant for PM30 (b = 0.4 for PM10)	
Mdry =	0.2	surface material moisture content, % (default 0.2 (dry conditions) when using rainfall parameter)	
c =	0.4	Constant for PM30 (c = 0.3 for PM10)	
p =	125	number of days with at least 0.01 in of precipitation per year	
S =	5	mph speed limit	

$$\text{PM: } \frac{3.75 \text{ lb/mi} \times 307 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.57 \text{ tons/yr}$$

$$\text{PM-10: } \frac{0.97 \text{ lb/mi} \times 307 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.15 \text{ tons/yr}$$

**** paved roads ******II. 40' Semi Truck**

$$0.125 \text{ trip/hr} \times 0.03 \text{ mile/trip} \times 2 \text{ (round trip)} \times 8,760 \text{ hr/yr} = 66 \text{ mile/yr}$$

$$E_f = k \cdot (sL/2)^{0.65} \cdot (W/3)^{1.5}$$

$$= 0.25 \text{ lb PM-10/mile}$$

$$= 1.30 \text{ lb PM/mile}$$

$$\text{where } k = 0.016 \text{ (particle size multiplier for PM-10)} \quad (k=0.082 \text{ for PM-30 or TSP})$$

$$sL = 0.4 \text{ mean silt loading (g/m}^2\text{)}$$

$$W = 38 \text{ tons average vehicle weight}$$

$$\text{PM: } \frac{1.30 \text{ lb/mi} \times 66 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.04 \text{ tons/yr}$$

$$\text{PM-10: } \frac{0.25 \text{ lb/mi} \times 66 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.01 \text{ tons/yr}$$

III. Pneumatic Truck

$$0.125 \text{ trip/hr (in)} \times 0.14 \text{ mile/trip (in)} \times 8,760 \text{ hr/yr} = 153 \text{ mile/yr}$$

$$\text{Total} = 153.30 \text{ mile/yr}$$

$$E_f = k \cdot [(s/12)^a] \cdot [(W/3)^b] / [(M_{dry}/0.2)^c] \cdot [(365-p)/365] \cdot (S/15)$$

$$= 3.70 \text{ lb PM/mile}$$

$$= 0.96 \text{ lb PM-10/mile}$$

$$\text{where } k = 10 \text{ (particle size multiplier, PM30)} \quad (k = 2.6 \text{ for PM10})$$

$$s = 4.8 \text{ mean \% silt content of unpaved plant roads}$$

$$a = 0.8 \text{ Constant for PM30/PM-10}$$

$$W = 37 \text{ tons, average vehicle weight}$$

$$b = 0.5 \text{ Constant for PM30} \quad (b = 0.4 \text{ for PM10})$$

$$M_{dry} = 0.2 \text{ surface material moisture content, \% (default 0.2 (dry conditions) when using rainfall parameter)}$$

$$c = 0.4 \text{ Constant for PM30} \quad (c = 0.3 \text{ for PM10})$$

$$p = 125 \text{ number of days with at least 0.01 in of precipitation per year}$$

$$S = 5 \text{ mph speed limit}$$

$$\text{PM: } \frac{3.70 \text{ lb/mi} \times 153 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.28 \text{ tons/yr}$$

$$\text{PM-10: } \frac{0.96 \text{ lb/mi} \times 153 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.07 \text{ tons/yr}$$

$$\text{Total PM Emissions From Unpaved Roads} = 0.90 \text{ tons/yr}$$

$$\text{Total PM-10 Emissions From Unpaved Roads} = 0.22 \text{ tons/yr}$$